"You Are What You Eat"
Identity, Self-Actualization, and Self-Esteem in Vegetarians and Omnivores

Iryna Zelinska, B.A., Applied Social Psychology M.A. Program student;
Joanna Roszak, Ph.D.

SWPS University of Social Sciences and Humanities, Warsaw, Poland

Background: inspiration

Two concepts that inspired this exploration:

- Notion of **vegetarianism as an identity**: "diet = identity", so vegetarianism (possibly also veganism) may contribute to a personal sense of identity (Nezlek et al., 2020)

- **Similarity-Attraction effect** (Wetzel & Insko, 1982): we are attracted to similar individuals because:

    (1) such individuals are similar to our ideals

    (2) such individuals are similar to ourselves

    (3) similar to us individuals validate our views

Background: theory

- **Self-esteem** is connected to subjective well-being (Diener, Suh, Lucas and Smith, 1999)

- **Self-determination** influences self-esteem (Owens, Mortimer and Finch, 1996)

- **Self-actualization**: connected to self-esteem and identity (Patrick & Williams, 2012)

- **Identity** is connected to Ingroup Favouritism (Tajfel and Turner, 1986)

Research Questions

1: Is there any difference in the level of self-actualization between people following plant-based diets versus omnivores?

2: Is there any difference in the level of self-esteem between people following plant-based diets versus omnivores?

3: Are there any differences in social distance from the outgroup between people following plant-based diets versus omnivores?

4: Is there any difference in the level of identification with one's ingroup between people following plant-based diets versus omnivores?

5. Would the differences specified across RQs 1-4 be more pronounced in the condition of activation of one's dietary social identity (identity boost) versus the baseline (personal) identity?

6: Does dietary identity contribute to self-esteem between people following plant-based diets versus omnivores?

7: Does dietary identity contribute to self-actualization between people following plant-based diets versus omnivores?

Method: Participants

- Recruited online ($N = 78$)

- Ages 18 and above (M = 4.46; SD = .820)

- Females ($n = 42$), males ($n = 16$), genderfluid people ($n = 4$)

- Followers of plant-based diets $n = 34$

- Followers of animal product-based diet $n = 40$

Method: Design and variables

Experimental design:

- IV1: dietary choice - declaration (2 levels: omni-/carnivores vs. vegetarians, vegans, fruitarians)

- IV2: identity manipulation (2 levels: baseline/personal identity vs. dietary social identity - manipulation by custom texts intended to boost one's social identity related to their diet)

- DV1: self-actualization (Short Index of Self Actualization by Crandall & Jones, 1991)

- DV2: self-esteem (Rosenberg Self Esteem Scale by Rosenberg, 1965)

- DV3: distance from outgroup (Bogardus Social Distance Scale, modified by Mather, Jones, & Moats, 2017)

- DV4: identification with ingroup (FISI, Postmes, Haslam & Jans, 2013)

- DV5: dietary identity (measured by inspired questions by Nezlek et al.., 2020)

Procedure

- Qualtrics-based survey was online for 3 full months (November, 2021 – February, 2022)

- Distribution via SurveySwap and SurveyCircle

- Cover story: well-being during COVID-19 pandemic

Procedure

- Step 1: Instructions, cover story, informed consent

- Step 2: Diet Declaration

- Step 3: Custom texts ▢ randomized identity manipulation (baseline vs. two types of social identity boost, based on dietary preferences)

- Step 4: Self-esteem

- Step 5: Identification with ingroup

- Step 6: Self-actualization

- Step 6: Distance from Outgroup

- Demographic data

- Debrief (default message sent upon completion of the study)

Results

1: Is there any difference in the level of self-actualization between people following plant-based diets versus omnivores?

ANOVA

Mean_SISA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.183	1	.183	1.047	.310
Within Groups	11.197	64	.175		
Total	11.380	65			
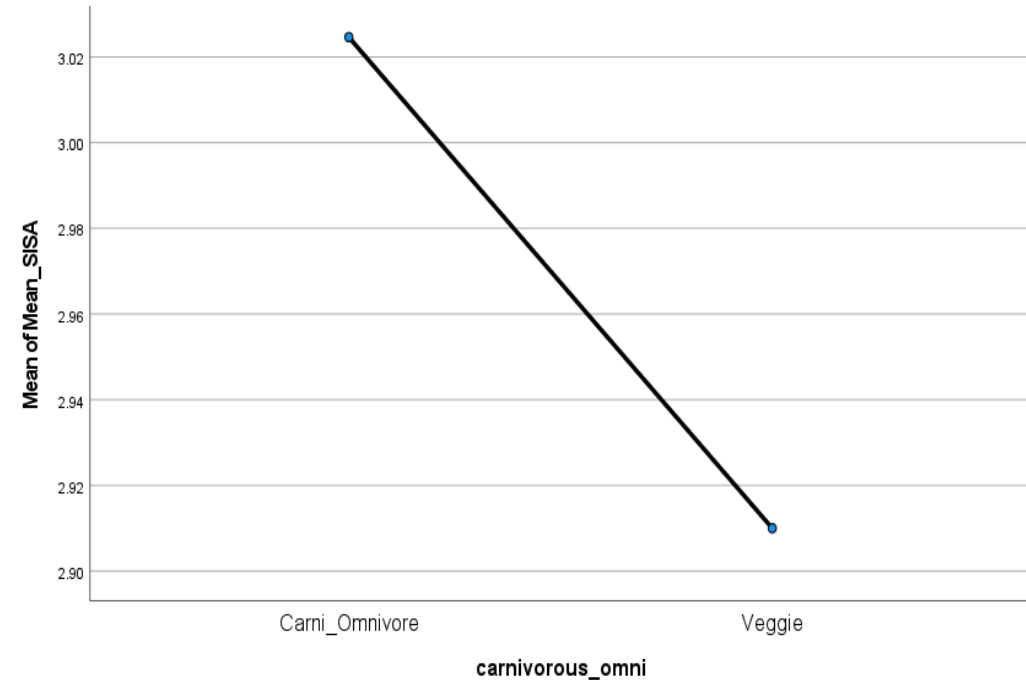
2: Is there any difference in the level of self-esteem between people following plant-based diets versus omnivores?

ANOVA

Means_RSES

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.289	1	.289	4.057	.050
Within Groups	2.993	42	.071		
Total	3.282	43			
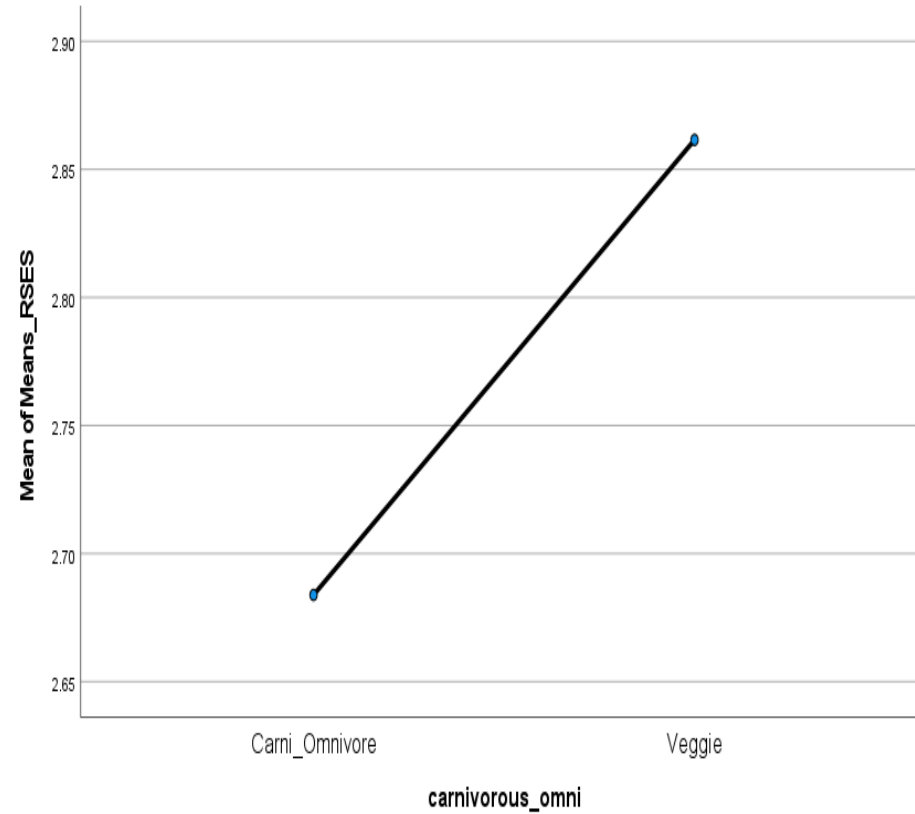
3: Are there any differences in social distance from the outgroup between people following plant-based diets versus omnivores?

ANOVA

Mean_Bogdarus

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	7.718	1	7.718	12.756	<.001
Within Groups	37.512	62	.605		
Total	45.229	63			
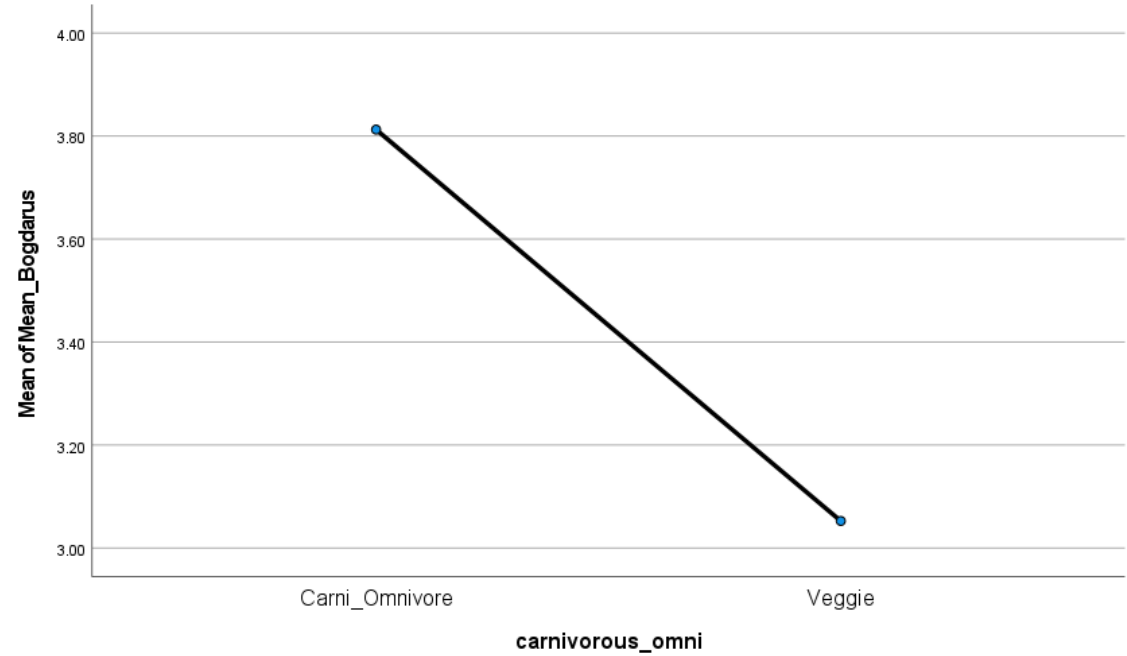
4: Is there any difference in the level of identification with one's ingroup between people following plant-based diets versus omnivores?

ANOVA

Mean_FISI

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4.651	1	4.651	3.069	.085
Within Groups	95.459	63	1.515		
Total	100.110	64			
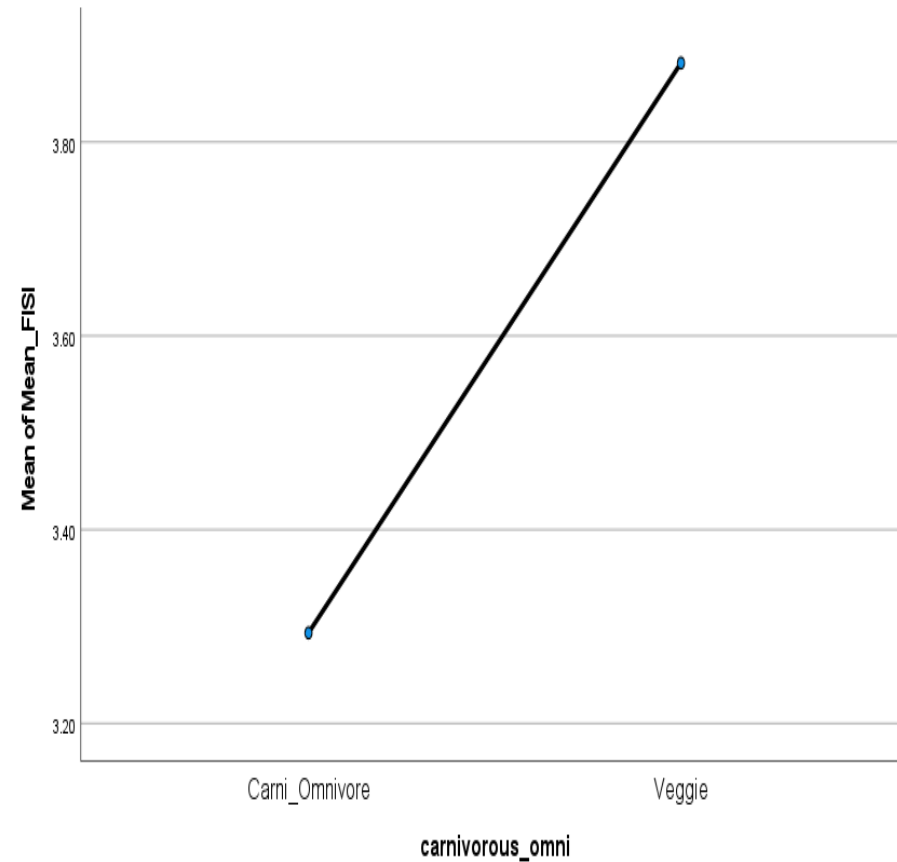
5. Would the differences specified across RQs 1-4 be more pronounced in the condition of activation of one's dietary social identity (identity boost) versus the baseline (personal) identity?

Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	Mean_Bogdarus	.022[a]	1	.022	.043	.837	.001
	Means_RSES	.012[b]	1	.012	.157	.694	.004
	Mean_FISI	.318[c]	1	.318	.250	.620	.006
	carnivorous_omni	.249[d]	1	.249	1.198	.280	.029
	Means_Nezlek	.126[e]	1	.126	.035	.854	.001
	Mean_SISA	.165[f]	1	.165	1.269	.267	.031
Intercept	Mean_Bogdarus	522.198	1	522.198	1034.531	<.001	.963
	Means_RSES	292.538	1	292.538	3876.151	<.001	.990
	Mean_FISI	535.395	1	535.395	421.559	<.001	.913
	carnivorous_omni	63.583	1	63.583	305.608	<.001	.884
	Means_Nezlek	879.936	1	879.936	240.297	<.001	.857
	Mean_SISA	365.040	1	365.040	2802.163	<.001	.986
Ident_Manipul_2_cat	Mean_Bogdarus	.022	1	.022	.043	.837	.001
	Means_RSES	.012	1	.012	.157	.694	.004
	Mean_FISI	.318	1	.318	.250	.620	.006
	carnivorous_omni	.249	1	.249	1.198	.280	.029
	Means_Nezlek	.126	1	.126	.035	.854	.001
	Mean_SISA	.165	1	.165	1.269	.267	.031
Error	Mean_Bogdarus	20.191	40	.505			
	Means_RSES	3.019	40	.075			
	Mean_FISI	50.801	40	1.270			
	carnivorous_omni	8.322	40	.208			
	Means_Nezlek	146.475	40	3.662			
	Mean_SISA	5.211	40	.130			
Total	Mean_Bogdarus	575.490	42				
	Means_RSES	314.090	42				
	Mean_FISI	612.125	42				
	carnivorous_omni	78.000	42				
	Means_Nezlek	1084.750	42				
	Mean_SISA	396.284	42				
Corrected Total	Mean_Bogdarus	20.212	41				
	Means_RSES	3.031	41				
	Mean_FISI	51.119	41				
	carnivorous_omni	8.571	41				
	Means_Nezlek	146.601	41				
	Mean_SISA	5.376	41				

a. R Squared = .001 (Adjusted R Squared = -.024)
b. R Squared = .004 (Adjusted R Squared = -.021)
c. R Squared = .006 (Adjusted R Squared = -.019)
d. R Squared = .029 (Adjusted R Squared = .005)
e. R Squared = .001 (Adjusted R Squared = -.024)
f. R Squared = .031 (Adjusted R Squared = .007)

6: Does dietary identity contribute to self-esteem between people following plant-based diets versus omnivores?

Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	Mean_Bogdanus	.022[a]	1	.022	.043	.837	.001
	Means_RSES	.012[b]	1	.012	.157	.694	.004
	Mean_FISI	.318[c]	1	.318	.250	.620	.006
	carnivorous_omni	.249[d]	1	.249	1.198	.280	.029
	Means_Nezlek	.126[e]	1	.126	.035	.854	.001
	Mean_SISA	.165[f]	1	.165	1.269	.267	.031
Intercept	Mean_Bogdanus	522.198	1	522.198	1034.531	<.001	.963
	Means_RSES	292.538	1	292.538	3876.151	<.001	.990
	Mean_FISI	535.395	1	535.395	421.559	<.001	.913
	carnivorous_omni	63.583	1	63.583	305.608	<.001	.884
	Means_Nezlek	879.936	1	879.936	240.297	<.001	.857
	Mean_SISA	365.040	1	365.040	2802.163	<.001	.986
Ident_Manipul_2_cat	Mean_Bogdanus	.022	1	.022	.043	.837	.001
	Means_RSES	.012	1	.012	.157	.694	.004
	Mean_FISI	.318	1	.318	.250	.620	.006
	carnivorous_omni	.249	1	.249	1.198	.280	.029
	Means_Nezlek	.126	1	.126	.035	.854	.001
	Mean_SISA	.165	1	.165	1.269	.267	.031
Error	Mean_Bogdanus	20.191	40	.505			
	Means_RSES	3.019	40	.075			
	Mean_FISI	50.801	40	1.270			
	carnivorous_omni	8.322	40	.208			
	Means_Nezlek	146.475	40	3.662			
	Mean_SISA	5.211	40	.130			
Total	Mean_Bogdanus	575.490	42				
	Means_RSES	314.090	42				
	Mean_FISI	612.125	42				
	carnivorous_omni	78.000	42				
	Means_Nezlek	1084.750	42				
	Mean_SISA	396.284	42				
Corrected Total	Mean_Bogdanus	20.212	41				
	Means_RSES	3.031	41				
	Mean_FISI	51.119	41				
	carnivorous_omni	8.571	41				
	Means_Nezlek	146.601	41				
	Mean_SISA	5.376	41				

a. R Squared = .001 (Adjusted R Squared = -.024)
b. R Squared = .004 (Adjusted R Squared = -.021)
c. R Squared = .006 (Adjusted R Squared = -.019)
d. R Squared = .029 (Adjusted R Squared = .005)
e. R Squared = .001 (Adjusted R Squared = -.024)
f. R Squared = .031 (Adjusted R Squared = .007)

7: Does dietary identity contribute to self-actualization between people following plant-based diets versus omnivores?

Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	Mean_SISA	3.797[a]	12	.316	2.212	.024	.334
	carnivorous_omni	3.747[b]	12	.312	1.623	.113	.269
Intercept	Mean_SISA	462.699	1	462.699	3234.028	<.001	.984
	carnivorous_omni	76.979	1	76.979	400.270	<.001	.883
Means_Nezlek	Mean_SISA	3.797	12	.316	2.212	.024	.334
	carnivorous_omni	3.747	12	.312	1.623	.113	.269
Error	Mean_SISA	7.583	53	.143			
	carnivorous_omni	10.193	53	.192			
Total	Mean_SISA	601.387	66				
	carnivorous_omni	126.000	66				
Corrected Total	Mean_SISA	11.380	65				
	carnivorous_omni	13.939	65				

a. R Squared = .334 (Adjusted R Squared = .183)

b. R Squared = .269 (Adjusted R Squared = .103)

Descriptive Statistics

	Means_Nezlek	Mean	Std. Deviation	N
Mean_SISA	1.00	2.8889	.47266	6
	1.50	3.2000	.26667	3
	2.00	3.1000	.04714	2
	2.50	2.8800	.61536	5
	3.00	2.9556	.03849	3
	3.50	2.6000	.09428	2
	4.00	3.4167	.22027	4
	4.50	3.2333	.31482	6
	5.00	2.8800	.19090	5
	5.50	3.6222	.25240	3
	6.00	2.8111	.31670	6
	6.50	3.0857	.32595	7
	7.00	2.7810	.45923	14
	Total	2.9899	.41842	66
carnivorous_omni	1.00	1.1667	.40825	6
	1.50	1.3333	.57735	3
	2.00	1.5000	.70711	2
	2.50	1.0000	.00000	5
	3.00	1.0000	.00000	3
	3.50	1.0000	.00000	2
	4.00	1.2500	.50000	4
	4.50	1.0000	.00000	6
	5.00	1.2000	.44721	5
	5.50	1.0000	.00000	3
	6.00	1.5000	.54772	6
	6.50	1.5714	.53452	7
	7.00	1.5714	.51355	14
	Total	1.3030	.46309	66

Conclusions

No significant difference in level of self-actualization between both groups
- No significant difference in measure of social distance from the outgroup
- Significant difference in level of identification with ingroup
- No significant difference in identity manipulation with different dietary identities
Dietary identity: statistically not significant

- Self-esteem: lower for omnivorous group (significant difference)

- Self-actualization: higher for omnivores (non-significant difference)
- Identification with ingroup: higher for a group of plant-based followers (significant difference)

- If dietary identity affects the level of self-esteem for people following plant-based diets versus omnivores: statistically significant

Future research

- More research

- Individual & gender differences

- Bigger, more diverse sample

- Different measures

- New innovative approach to conservation and conscious diets

- Ecology, economy, and worldview – positive aspects?

References

- Wetzel & Insko, 1982. The similarity–attraction relationship: Is there an ideal one? *Journal of Experimental Social Psychology, 18*(3), 253–276. https://doi.org/10.1016/0022-1031(82)90053-1

- Patrick & Williams, 2012. (2012). Self-determination theory: its application to health behavior and complementarity with motivational interviewing. *International Journal of Behavioral Nutrition and Physical Activity*, 9(18), https://doi.org/10.1186/1479-5868-9-18

- Owens, Mortimer and Finch, 1996. Self-determination as a source of self-esteem in adolescence. *Social Forces, 74*(4), 1377–1404. https://doi.org/10.2307/2580355

- Nezlek, J., Forestell, C. A., & Cypryanska, M. (2020). Dietary Similarity of Friends and Lovers: Vegetarianism, Omnivorism, and Personal Relationships.

  The Journal of Social Psychology. https://doi.10.1080/00224545.2020.1867042

- Rosenberg, 1965. (1965). *Society and the adolescent self-image.* Princeton, NJ: Princeton University Press

- Mather, Jones, & Moats, 2017. Improving upon Bogardus: Creating a More Sensitive and Dynamic Social Distance Scale. Survey Practice, 10(4), 1-9.

- Postmes, Haslam & Jans, 2013. A single-item measure of social identification: Reliability, validity, and utility. British Journal of Social Psychology, 52(4), 597 - 617. https://doi.org/10.1111/bjso.12006

- Tajfel and Turner, 1986. The Social Identity Theory of Intergroup Behavior. In: Worchel, S. and Austin, W.G., Eds., Psychology of Intergroup Relation, Hall Publishers, Chicago, 7-24.
- Diener, Suh, Lucas and Smith, 1999. (1999). Subjective Well-Being: Three Decades of Progress. *Psychological Bulletin, 125*(2), 276 - 302.

- Crandall & Jones, 1991. Issues in self-actualization measurement. *Journal of Social Behavior & Personality, 6*(5), 339–344.

Thank you for listening ☺

Questions or comments? Please ask or email me at
izelinska@st.swps.edu.pl